

What is claimed is

1. An optical information recording medium comprising:

one or more information layers including a recording  
5 layer for recording/reproducing an information signal by  
irradiation with a laser light,; and a separating layer  
or a protective substrate on which a first information  
layer of the information layer on the irradiation face side  
is formed, the separating layer or the protective substrate  
10 having a guide groove spirally or concentrically formed on  
the surface, and the respective inclined planes on the  
inner perimeter side and the outer perimeter side of the  
guide groove having inclined angles  $\alpha$  and  $\beta$  with respect to  
the bottom face of the guide groove, the guide groove  
15 having one or more dissymmetric regions where the inclined  
angles  $\alpha$  and  $\beta$  are different.

2. The optical information recording medium according  
to claim 1, wherein the guide groove has two or more of the  
20 dissymmetric regions in the radius direction.

3. The optical information recording medium according  
to claim 1, wherein the inclined angle  $\beta$  is smaller than  
the inclined angle  $\alpha$ .

4. The optical information recording medium according to claim 3, having a relation:  $\alpha - \beta \geq 20$  degrees.

5. The optical information recording medium according to claim 1, wherein the protective substrate has a radius  $r$  and the dissymmetric region is formed at a distance larger than  $r/2$  from the center of the protective substrate in the radius direction.

10 6. The optical information recording medium according to claim 2, wherein the dissymmetric region comprises first and second dissymmetric regions, and has a relation:  $\alpha - \beta \leq 10$  degrees in the first dissymmetric region, and a relation:  $\alpha - \beta \geq 20$  degrees in the second dissymmetric region.

15 7. The optical information recording medium according to claim 6, wherein the first dissymmetric region is formed at a distance smaller than  $r/2$  from the center of the protective substrate in the radius direction, whereas the second dissymmetric region is formed at a distance larger than  $r/2$  from the center of the protective substrate in the radius direction.

20 8. The optical information recording medium according

to claim 1, wherein the optical information recording medium comprises a single-sided multi-layered configuration, and wherein at least a second information layer, a separating layer having a second guide groove and the first  
5 information layer are sequentially laminated on the protective substrate having the first guide groove.

9. The optical information recording medium according to claim 1, wherein the information layer has roughly  
10 agreeing thicknesses in the inclined face portion on the inner perimeter side and in the inclined face portion on the outer perimeter side in the dissymmetric region.

10. A method for producing an optical information  
15 recording medium comprising: one or more information layers including a recording layer for recording/reproducing an information signal by irradiation with a laser light,; and a separating layer or a protective substrate on which a first information layer of the information layer on the  
20 irradiation face side is formed, the separating layer or the protective substrate having a guide groove spirally or concentrically formed on the surface, and the respective inclined planes on the inner perimeter side and the outer perimeter side of the guide groove having inclined angles  $\alpha$   
25 and  $\beta$  with respect to the bottom face of the guide groove,

the guide groove having one or more dissymmetric regions where the inclined angles  $\alpha$  and  $\beta$  are different,

wherein the protective substrate is formed by molding with a stamper as a mold produced from a master, and as the master, one is used which has a dissymmetric region where  
5 the inclined angles  $\alpha$  and  $\beta$  are different.

11. The production method according to claim 10,

wherein the production method comprises forming a  
10 resist layer on a substrate for a master, collecting a laser light with a condenser lens to cut the resist layer for forming a mask pattern, and etching the mask pattern to form a spiral or concentric guide groove, and wherein a light axis of the laser light to be incident on the  
15 condenser lens is inclined to cut the resist layer.

12. The production method according to claim 10,

wherein the production method comprises forming a resist layer on a substrate for a master, collecting a  
20 laser light with a condenser lens to cut the resist layer for forming a mask pattern, and etching the mask pattern to form a spiral or concentric guide groove, and wherein two collected laser lights are used to cut the resist layer.